

NOTES FOR STUDENTS

Current taxonomic literature.—E. L. GREENE (Rep. Sp. Nov. 13:320-324. 1914) has published 12 new species of flowering plants from western United States. The same author (Am. Mid. Nat. 3:333-335. 1914) describes 4 new species of *Ranunculus* from eastern United States, and (Cybele Columbiana 1:7-33. 1914) characterizes 2 new species of *Viola* from the District of Columbia; also (*ibid.* 33-36) under the heading "Manipulus Malvacearum" describes 5 new species of *Sidalcea*.—R. HAMET (Bot. Jahrb. 50: Beibl. no. 114. pp. 25-27. 1914) has published two new American species of *Sedum*.—H. HARMS (Rep. Sp. Nov. 13:419, 420. 1914) records two new species of *Inga* from Central America.—E. HASSLER (*ibid.* 237-239) describes a new species of *Melochia* with two varieties from Argentina.—W. HERTER (*ibid.* 296) has published a new species of *Lycopodium* (*L. Sydowiorum*) from Brazil.—G. HIERONYMUS (Leaf. Philipp. Bot. 6:1987-2064. 1913) under the title "Selaginellarum species Philippinenses" records 36 species of *Selaginella* from the Philippine Islands, 16 of which are new to science. The same author (Hedwigia 55:325-375. 1914) in an article entitled "Beiträge zur Kenntnis der Gattung *Pteris*" has published several new species and varieties of this genus from the Philippine Islands.—M. A. HOWE (Mem. Torr. Bot. Club 15:1-185. pls. 1-66. 1914) has published an important contribution to our knowledge of the marine flora of South America. The paper is entitled "The marine algae of Peru," and it includes 123 species of which 29 are described as new to science. One new genus (*Lobocolax*) of the Nemalionaceae is proposed.—J. HUBER (Bull. Soc. Bot. Genève II. 6:179-212. 1914) under the title "Plantae Duckeanae Austro-Guyanenses" has published 45 new species and varieties of flowering plants from southern Guiana. One new genus (*Humirianthera*) of the Icacinaceae is included. The same author (*ibid.* 215) describes a new species of *Wedelia* (*W. paraensis*) from Brazil.—A. HUE (Ann. Mycologici 12:509-534. 1914) under the title "Lichenes novos melius cognitos" describes several new species and includes one new genus (*Nylanderella*), based on *Siphula medioxima* Nyl. from New Zealand.—J. HUTCHINSON (Bull. Kew 1914. p. 355) has published a new genus (*Triplotaxis*) of the Compositae from Africa.—C. A. KOFOID (Univ. Calif. Publ. Bot. 6:35-40. pl. 7. 1914) gives an account of a new alga which was found in a local reservoir at Berkeley, California, to which he gives the generic name *Phytomorula* and provisionally refers it to the Coelastraceae.—F. KRÄNZLIN (Philipp. Jour. Sci. Bot. 8:163-179. 1913) under the title "Cyrandraceae novae Philippinenses" has published 25 new species in this family from the Philippine Islands.—K. KRAUSE (Bot. Jahrb. 50:343-348. 1914. Supplement-Band) describes and illustrates a new genus (*Englerophytum*) of the Sapotaceae from Africa.—J. G. KUHLMAN (Rep. Sp. Nov. 13:393, 394. 1914) has described two new species of *Biovularia* and proposes a new genus (*Saccolaria*) of the Lentibulariaceae from Brazil.—C. LAUTERBACH (Bot. Jahrb. 52:19-176. 1914) in cooperation with several specialists has published an important contribution to our knowledge of the flora of Oceania under the title "Beiträge

zur Flora von Papuasien IV." Approximately 80 species new to science are described and the following new genera are proposed: *Kania* and *Discogyne* Schltr. of the Saxifragaceae, *Aistopetalum*, *Betchea*, *Kaernbachia*, *Stollaea*, *Opocunonia*, and *Pullea* Schltr. of the Cunoniaceae, and *Buergersiochloa* Pilger of the Gramineae. The same author (Rep. Sp. Noy. 13:239-242. 1914) describes several new species of flowering plants from Kaiser-Wilhelms Land and includes a new genus (*Keysseria*) of the Compositae.—H. LÉVEILLÉ (*ibid.* 257-266) has published several new species of flowering plants from China and includes a new genus (*Hoyopsis*) of the Celastraceae.—J. LUNELL (Am. Mid. Nat. 3:343-345. 1914) in continuation of his studies of the flora of North Dakota records 3 new species and 3 new varieties of flowering plants.—K. K. MACKENZIE (Torreya 14:125-127. 1914) has described a new sedge (*Carex oklahomensis*) which has a range from southwestern Missouri to Texas. The same author (*ibid.* 155-159) characterizes a new species of *Carex* (*C. cryptolepsis*) from the northeastern states and adjacent Canada.—T. MAKINO (Tokyo Bot. Mag. 28:20-30. figs. 1-3. 1914) under the title "Observations on the flora of Japan" includes descriptions of the following new genera: *Physalias-trum* of the Solanaceae, *Shibataea* and *Hakonechloa* of the Gramineae.—U. MARTELLI (Webbia 4:399-435. pls. 1-43. 1914) presents an important paper on the Pandanaceae, describing and illustrating 48 species and varieties new to science of which several are from the Philippine Islands.—E. D. MERRILL (Philipp. Jour. Sci. Bot. 8:207-250. 1913) begins a series of articles entitled "Studies on Philippine Melastomaceae" in which 13 new species are described in *Memecylon*, and 26 in *Medinilla*. The same author (*ibid.* 9:17-95. 1914) has begun the publication of "An enumeration of the plants of Guam; the first article includes the lower groups and the flowering plants to the Zygomphyllaceae; and (*ibid.* 261-292) in a tenth article on "New or noteworthy Philippine plants" describes 37 species new to science, and includes a new genus (*Worcesterianthus*) of the Olacaceae; (*ibid.* 293-337) under the same heading adds upward of 50 more species of flowering plants new to the Philippines; and (*ibid.* 353-389) under the title "Plantae Wenzelianae" has published upward of 40 new species of Spermatophyta from the Philippine Islands.—E. B. COPELAND (*ibid.* 443-459) describes 17 new species of flowering plants collected on Luzon Island by Father M. VANOVERBERGH; and (*ibid.* 461-493) in continuation of his studies on the Euphorbiaceae records 35 new species in this family; and (*ibid.* 517-541) has published 16 new species of the Dilleniaceae and 11 of the Meliaceae from the Philippine Islands; and (*ibid.* 435-441) presents an article on Hawaiian ferns collected by M. l'Abbé U. FAURIE, describing 7 new species.—R. MEYER (Monats. für Kakteenk. 24:113, 114. 1914) describes a new variety of *Echinopsis* (*E. rhodotricha* var. *robusta*) from Argentina.—C. MEYLAN (Bull. Soc. Bot. Genève II. 6:86-90. 1914) under the title "Myxomycetes du Jura" has described a new genus *Barbeyella*.—C. F. MILLSPAUGH (Field Mus. Nat. Hist. Bot. Ser. 2:383-397. 1914) in continuation of his studies in the Euphorbiaceae has described 7 new

species in *Chamaesyce*. Several new combinations are made.—A. H. MOORE and S. MOORE (Jour. Bot. 52:263-265. 1914) have published three new species of Compositae from Peru.—S. MOORE (*ibid.* 89-98. *pl.* 530) has published several new species of the Vernoniae from Africa and includes a new genus (*Muschleria*). The same author (*ibid.* 146-151. *pl.* 530B) has described a number of new flowering plants from South Africa and includes a new genus (*Rhamphogyne*) of the Compositae from Rodriguez Island; and (*ibid.* 333-337) under the title "Alabastra diversa" has published several new species of flowering plants including a new *Acalypha* (*A. Forbesii*) from Peru.—J. M. GREENMAN.

Chemistry of diseased beets.—The composition of sound and of diseased sugar beets has been investigated by BODNÁR⁵ for the purpose of determining if any differences were discoverable which might account for a predisposition to bacterial root-rot on the part of the diseased plants, and thus throw some light on SORAUER'S view that this disease is induced by abnormal metabolism by which the way is paved for inroads by bacteria. In the preparation of a mash from the diseased beets BODNÁR apparently used the whole of each beet without a separation of the sound and the diseased portions, except in a few instances when sound and diseased tissues of the same beet were compared. He found that the diseased beets contained less water and less cane sugar, but more acid and more invert sugar than the sound beets. The invert sugar content of the sound portion of diseased beets was higher than that of normal beets, but not as high as that of the diseased portion of the same beet. Invertase was shown to be present in both the sound and the diseased portions of diseased beets, but absent in sound beets. The ash content of both the sound and the diseased tissue of diseased beets was higher than that of sound beets, and the ash was unusually rich in aluminium. That the conditions found in the diseased beets can be regarded as determining factors predisposing the plants to disease is unlikely, since the conditions were found after the plants had been invaded. The high acidity of the diseased beets, as well as the loss in cane sugar and increase in invert sugar, can be attributed directly to the metabolic activity of the bacteria. Even the increased ash content may indicate merely a proportionate loss of organic matter. It is interesting, however, and worthy of further investigation that in partly diseased beets invertase is present in both the sound and the diseased tissues, and that both are characterized by a higher ash content than normal beets. These conditions seem to indicate an effect of the disease beyond the tissues actually invaded.—H. HASSELBRING.

Alcohol oxidation in seed plants.—Two views have been proposed to explain why alcohol which is produced in plant tissues under conditions of

⁵ BODNÁR, J., Biochemische Untersuchungen der Rübenschwanzfäule der Zuckerrübe. Biochem. Zeitschr. 69:245-256. 1915.